

~~NB~~ On page 7, line 16, replace "Figure 3A shows the receptor-specific" with --(A) Receptor-specific--.

~~NB~~ On page 8, line 8, replace "Figure 3B shows the activation" with --(B) Activation--.

~~On~~ On page 8, line 13, replace "Figure 3C shows the responsiveness" with --(C) Responsiveness--.

~~On~~ On page 8, line 20, replace "Figure 3D shows that the" with --(D) The--.

~~On~~ On page 9, line 1, replace "Figure 4 shows the protease" with --FIG. 4 Protease--.

On page 9, line 3, replace "10  $\mu$ M 22(R)-hydroxycholesterol or ethanol (ETOH) control," with --(A) ethanol (ETOH) control or (B) 22(R)-hydroxycholesterol,--.

~~On~~ On page 9, line 8, replace "Figure 5 shows the metabolic" with --FIG. 5 Metabolic--.

#### In the Claims:

~~Please~~ Please cancel claims 9-16 without prejudice or disclaimer as drawn to a non-elected invention.

Please amend the claims as follows.

1. (Amended) A method of screening for [agonists of] an oxysterol that activates[activator of] LXR $\alpha$  mediated transcription, comprising the steps of:

(a) introducing a reporter construct and an LXR $\alpha$  expression construct into a host cell, wherein transcription of said reporter construct is activated when an oxysterol activator of LXR $\alpha$  binds to the LXR $\alpha$  protein;

(b) treating the host cell with [potential LXR-specific ligands] a candidate oxysterol activator of LXR $\alpha$ ; and

(c) [identifying compounds which activate LXR $\alpha$  transcription] determining whether said candidate activates LXR $\alpha$  mediated transcription of said reporter construct,

a3  
cont wherein activation of reporter construct transcription indicates that said oxysterol activates LXR $\alpha$  mediated transcription.

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3. (Amended) The method of claim 1, wherein said LXR $\alpha$  expression construct is selected from the group consisting of ~~CMX-LXR $\alpha$~~ , CMX-GAL4-LXR $\alpha$  [CMX-gal-LXR, RSV-LXR] and A5C-LXR $\alpha$ .

a4 4. (Amended) The method of claim 1, wherein said host cell is selected from the group consisting of mammalian cells and [drosophila] Drosophila cells.

5. (Amended) The method of claim 4, wherein said mammalian cells are selected from the group consisting of CV1, HeLa, HepG2, COS, 293, F9, and 3T3.

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7. (Amended) The method of claim 1, wherein said [means to identify compounds which activate LXR $\alpha$  transcription construct is selected from the group consisting of] determining step comprises a luciferase assay, a CAT assay, a beta-galactosidase assay, [and] or measuring reporter enzyme [levels] activity.

a5 8. (Amended) The method of claim 7, wherein measuring reporter enzyme [levels is by] activity comprises using a luminometer, a spectrophotometer or thin layer chromatography.

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Please add the following new claims:

a6 --17. The method of claim 1, wherein said candidate oxysterol activator of LXR $\alpha$  is a derivative of 22(R)-hydroxycholesterol, 20(S)-hydroxycholesterol, 24-hydroxycholesterol, 25-hydroxycholesterol, 7 $\alpha$ -hydroxycholesterol or FF-MAS (follicular fluid meiosis activating substance).

18. The method of claim 17, wherein said derivative is hydroxylated on one or more carbon atoms in the cholesterol backbone of said oxysterol activator, selected from carbon atoms numbered 4, 7, 20, 22, 24, 25, 26 or 27 (FIG. 2B).

19. The method of claim 1, wherein said reporter construct is selected from the group consisting of TK-MH100x4-LUC, TK-LXREx3-LUC and ADH-LXREx2-LUC.

*See C1*  
20. A method of screening for an oxysterol that activates LXR $\alpha$  mediated transcription, comprising the steps of:

- (a) providing a host cell comprising a reporter construct and an LXR $\alpha$  expression construct, wherein transcription of said reporter construct is activated when an oxysterol activator of LXR $\alpha$  binds to the LXR $\alpha$  protein;
- (b) treating the host cell with a candidate oxysterol activator of LXR $\alpha$  mediated transcription; and
- (c) determining whether said oxysterol activates LXR mediated transcription of said reporter construct.

wherein activation of reporter construct transcription indicates that said oxysterol is an activator of LXR $\alpha$  mediated transcription.

*ab cont.*  
21. A method of screening for an oxysterol that activates LXR $\alpha$  mediated transcription, comprising the steps of:

- (a) providing a host cell comprising a reporter construct and an expression construct, said expression construct comprising a gene encoding an LXR $\alpha$  protein, wherein transcription of said reporter construct is activated when an oxysterol activator of LXR $\alpha$  binds to the LXR $\alpha$  protein;
- (b) treating the host cell with an oxysterol; and
- (c) determining whether said oxysterol activates LXR $\alpha$  mediated transcription of said reporter construct,